Incidental deliverables (manuals, reports, plans, and other written documentation) to be provided under this contract are identified in this Attachment J-A. Nothing contained in this Attachment J-A shall relieve the Contractor from furnishing data called for by, or under the authority of, other provisions of this contract, which are not identified and described in this Attachment J-A. The cost of data to be furnished in response to Attachment J-A is included in the firm-fixed price of the awarded contract.

### J-A-1 SUBMITTALS

- a. The contractor is encouraged to submit "G"-designated submittals (requiring Government approval) as described in Specification 79K38424, section 01 33 00 for approval.
- b. At the Pre-work Conference, the Contractor shall provide, for approval by the Contracting Officer, the following schedules of submittals:
  - (1) A schedule of all shop drawings and technical submittals required by the specifications and drawings. The schedule will indicate the specification or drawing reference requiring the submittal; the material, item or process for which the submittal is required; the "SD" number and identifying title of the submittal; the Contractor's anticipated submission date and the approval need date.
  - (2) A separate schedule of all other submittals required under the contract but not listed in the specifications or drawings. The schedule will indicate the contract requirement reference; the type or title of the submittal; the Contractor's anticipated submission date and the approval need date (if approval is required).
- c. All submittals called for by the contract documents will be listed on one of the above schedules. If a submittal is called for but does not pertain to the contract work, the Contractor will include it in the applicable schedule and annotate it "N/A" with a brief explanation. Approval of the schedules by the Contracting Officer does not relieve the Contractor of supplying submittals required by the contract documents but which have been omitted from the schedules or marked "N/A".
- d. Copies of both schedules will be re-submitted monthly annotated by the Contractor with actual submission and approval dates. When all items on a schedule have been finally approved, no further re-submittal of the schedule is required.

#### J-A-2 SHOP DRAWINGS

Pursuant to FAR clause 52.236-21 entitled "Specifications and Drawings for Construction"; the Contractor shall submit Shop Drawings as detailed below.

For purposes of this clause, the term "Shop Drawings" shall be construed to include all "Submittal Descriptions" (Type SD-01, SD-02, SD-03, etc., as required by project technical specifications) that are necessary to fully describe contractor supplied materials and installation methods and demonstrate their compliance with the technical and performance requirements of the contract. Submittal Descriptions include drawings, design data, catalog cuts, descriptive literature, illustrations, schedules, performance and test data, and similar materials to be furnished by the contractor. The preparation and distribution requirements described herein apply to all such SD submittals except as noted in technical specifications or otherwise directed by the Contracting Officer.

- (a) For Shop Drawing submittals relating to Fire Safety systems, transmit twelve (12) complete sets as follows: transmit four (4) sets to the Contracting Officer and transmit the remaining eight (8) sets to the Architect/Engineer (A/E) whose name and address shall be provided at the Pre-work Conference.
- (b) For all other Shop Drawing submittals, transmit ten (10) sets as follows: transmit two (2) sets to the Contracting Officer and transmit the remaining eight (8) sets to the Architect/Engineer (A/E) whose name and address shall be provided at the Pre-work Conference.
- (c) The shop drawing submittals shall be transmitted to the Contracting Officer and the A/E on the same day. Delivery to the A/E shall be by the equivalent of "next day" delivery service. The timestamp recorded by the Contracting Officer upon receipt from the Contractor shall be the record date.
- (d) Four (4) sets shop drawings will be returned to the Contractor. These sets will be returned to the Contractor within 14 calendar days of the record date with appropriate review and approval notations as described below.

On or before completion date of the contract, the Contractor shall submit to the Contracting Officer two complete sets of shop drawings, which incorporate all comments, annotations, conditions of approval and corrections. Both drawing sets are to be made from the same original

(e) The shop drawings shall be complete and detailed and shall contain all information required for checking without reference to material contained in other shop drawing transmittals. Partial submittals will not be accepted unless specifically approved by the Contracting Officer. Any partial submittals shall be so indicated and any outstanding submittal required to complete the package shall be identified.

- (f) Shop drawings shall be submitted in a logical sequence that is duly coordinated with long lead-time procurements and with fabrication and construction schedules. Each set of shop drawings shall be accompanied by a completed KSC shop drawing submittal form listing the specification or drawing reference requiring the shop drawing; the material, item or process for which the shop drawing is required and the "SD" number and identifying title of the shop drawing. The Shop Drawing form will be supplied by the Government.
- (g) Shop drawings for certain systems (e.g. fire detection/suppression) must be submitted as soon as 30 days following contractor's Notice to Proceed, and associated as built drawings, software, programs and test procedures must be submitted up to 30 days prior to acceptance testing. See Shop Drawing and submittal references in project technical specifications for affected submittals and their respective deadlines.
- (h) "Drawings" as opposed to "Shop Drawings" shall mean actual drawings, diagrams, layouts and schematics. "Drawings" fall under the more general term "Shop Drawings" which include other required materials.
  - (1) Drawings shall be uniform in size, nominally 24 by 36 inches, with a maximum size of 28 by 40 inches. All drawings shall have dark lines on a white background.
  - (2) Drawings shall be numbered in logical sequence. The Contractor may use his own numbering system. Each drawing shall bear the number of the submittal (e.g. First Submittal, Second Submittal, etc.) in a uniform location adjacent to the title block. The NASA contract number shall appear in the margin, immediately below the title block, for each drawing.
  - (3) A blank space, no smaller than 4 by 5 inches shall be reserved on the right hand half of each sheet for the Government disposition stamp.
- (i) Review and approval notation will be as follows:
  - (1) Shop drawings marked "approved" authorize the Contractor to proceed with work covered by such drawings.
  - (2) Shop drawings marked "approved as noted" authorize the Contractor to proceed with the work covered provided he takes no exception to the corrections. The notes shall be incorporated on the shop drawings prior to submission of the final shop drawings.

- (3) Shop drawings marked "returned for correction" require the Contractor to make the necessary corrections and revisions on the drawings and re-submit them for approval in the same routine as before, prior to proceedings with any of the work depicted on the drawings.
- (4) Shop drawings marked "not approved" or "disapproved" indicate noncompliance with the contract requirements and the shop drawings shall be re-submitted with appropriate changes. No item of work requiring a shop drawing shall be accomplished until the drawings are approved or approved as noted.
- (5) The Contractor shall make any corrections required by the Contracting Officer. If the Contractor considers any correction or notation indicated on the returned shop drawings to constitute a change to the contract drawings or specifications; notice as required under the clause entitled "Changes" shall be given to the Contracting Officer.
- (6) The Government's engineering review of Contractor's shop drawing submittal(s) is for general conformance with the design concept of the project and the information given in the contract documents. As such, approval of the shop drawings by the Contracting Officer shall not be construed as a complete check, but will indicate only that the general method of construction and detailing is satisfactory. The Contractor is solely responsible for the dimensions and design of adequate connection details; confirming and correlating all quantities and dimensions; selecting fabrication processes and techniques of construction; coordinating the work with that of other trades and performing the work in a safe and satisfactory manner, and certifying that proposed products meet all technical specifications and all contractual provisions, especially those relating to the 'Buy American Act'. Corrections or comments made as part of the Government review do not relieve the Contractor from compliance with the requirements of the contract documents. Likewise, any approval of a Shop Drawing Submittal containing an unidentified deviation from the technical requirements of the applicable contract drawings, maps and specifications, shall not relieve the contractor from compliance with the technical requirements.
- (j) If changes are necessary to approved shop drawings whether as a result of a contract change or for any other reasons, the Contractor shall make such revisions and resubmit the shop drawings in accordance with the procedures in paragraphs a. through c. above. No item of work requiring a shop drawings change shall be accomplished until the changed shop drawings are approved.

(k) Progress payments will not be made on materials and equipment that have been delivered to the job site but not approved on shop drawings.

# J-A-3 MATERIAL SAFETY DATA SHEETS (MSDS) SUBMITTAL/CHEMICAL INVENTORY REPORTING AND MANAGEMENT

The Contractor shall provide a complete and accurate list, accompanied by the applicable Material Safety Data Sheets (MSDS), of all materials and chemicals listed on the Consolidated List of Chemicals Subject to the Emergency Planning and Community Right-To-Know Act (EPCRA) and Section 112(r) of the Clean Air Act that will be stored onsite and/or used in the execution of this contract, regardless of the quantity. This information shall be provided to the Contracting Officer (CO) prior to the time of delivery of the materials and chemicals to the site. This inventory is to be updated and resubmitted to the CO on a monthly basis. All inventory reporting is to be completed on the Chemical Inventory for Construction Projects at Kennedy Space Center Form (8-313NS). Appropriate labels and MSDS shall be provided for all chemical shipments.

### J-A-4 PROGRESS SCHEDULES

Pursuant to FAR 52.236-15, entitled "Schedules for Construction Contracts," the Contractor shall:

- (a) Prepare the Progress Schedule using standard commercially available scheduling software or comparable format such as a bar chart approved by the Contracting Officer.
- (b) Submit the Progress Schedule, for approval by the Contracting Officer, at the Pre-Work Conference in four (4) copies. Include a copy of the electronic file if Progress Schedule is prepared using scheduling software. The approved initial progress schedule will be the baseline schedule for the project.
- (c) Include no less than the following information on the Progress Schedule:
  - (1) Major headings for primary project scope broken out in accordance with the Divisions and/or Sections of the project specifications.
  - (2) Line item break-downs under each major heading sufficient to track the progress of the work.

- (3) A line item showing contract finalization tasks which includes Punch List, Clean-up and Demobilization, and Final Construction Drawings.
- (4) Appropriate level of detail under each line item or activity (compatible with the schedule of values) sufficient to track the cost and schedule performance, including scheduled vs. actual percentage complete for any given day within the contract performance period. (Progress schedules prepared using scheduling software shall include resource loaded activities [labor, material, and other resources), major deliveries, project milestones, etc.]. Bar Charts shall include, as a minimum, a materials bar and a separate labor bar for each line item.) Each element shall include the estimated cost and percentage weight of total contract cost. The labor element shall also show the number of workers expected to be working on any given date within the Contract Performance Period.
- (5) Separate line items for Mobilization and Shop Drawing submittal and approval (these items are to show no associated costs).
- (6) The progress schedule or bar chart shall indicate the file date and status date (data date).
- (d) Update the progress schedule every 30 days (unless specified otherwise)\* throughout the Contract Performance Period and submit four copies (and electronic file as applicable) to the Contracting Officer for approval. Progress schedule updates shall be submitted concurrently with progress payment requests

### PROJECT SPECIFIC KENNEDY SPACE CENTER REQUIREMENTS

The project specific Kennedy Space Center requirements supporting Contract Section I are identified in this Attachment J-C. Nothing contained in this Attachment J-C shall relieve the Contractor from complying with other requirements of this contract, which are not identified and described in this Attachment J-C.

# J-C-1 UTILITY OUTAGE, ENERGIZED ELECTRICAL WORK, AND EXCAVATION PERMITS

### (a) Utility Outage Permits

- (1) All outages required during the prosecution of work which affects utility systems, such as electrical, water, fire detection and protection systems and air handling systems will require permits. Work shall be scheduled to hold outages to a minimum. Request for utility outage permits shall be made in writing to the Contracting Officer at least fourteen (14) working days in advance of the time required. The request shall state the system involved, area involved, approximate time of outage, and the nature of the work involved. The fact that the Contractor requests an outage for a specific time period does not necessarily mean that the outage will take place. Due to the nature of the operations at Kennedy Space Center, the Contractor probably will not know until the day before the requested date if the outage will take place as scheduled. All outages will take place outside regular working hours. The Contractor will not be entitled to additional payment for working irregular hours due to outages.
- (2) Prior to beginning work on an electrical system under an approved outage, the Contractor shall also obtain an executed Work Permit (form number KSC-26-4000NS) from the Base Support contractor.

### (b) Excavation Permits

The Contractor shall request and obtain excavation permit(s) prior to performing any excavation. KSC Form 26-312NS, Utility Locate/Excavation Permit Request, shall be prepared by the Contractor and submitted to the Government for approval at least 15 working days prior to the planned excavation date. The Contractor shall comply with the requirements of the Base Support Contractor's "Excavation/Dig Permit Procedure" WCC-P-0002 (latest revision), in the preparation, submission and use of the permit(s).

#### J-C-2 FIRE PROTECTION AND REQUIRED PERMITS

The KSC Fire Department will provide fire suppression, inspection and rescue services to the Contractor as necessary. The Contractor shall:

- (a) Provide approved fire extinguishers of appropriate type for hazards involved.
- (b) Report all fires to the Fire Service at 867-7911 or 867-1911.
- (c) Comply with all requirements of KHB 1710.2C Section 504 (Heat Producing Devices) and NSS 1740.11 "NASA Safety Standard for Fire Protection" Section 702 and Chapter 8 for work performed at the Kennedy Space Center.
- (d) Provide a fire watch in accordance with Federal OSHA Safety and Health Standards 29 CFR 1926.352/1910.252 when required by the welding and burning permitting official.
- (e) Prevent false fire alarms by providing 24-hour advance notice to the Contracting Officer's Technical Representative (COTR) when construction activities in areas protected by fire alarm and/or detection systems may produce airborne particulates (smoke or dust) caused by construction activities such as painting, stripping, cutting drywall or concrete, sandblasting, and/or removing raised floor panels.
- (f) Request permits for all welding and burning operations. Requests for these permits shall be made in writing to the Government at least seven (7) working days in advance of the time required.

### J-C-3 PERMANENTLY INSTALLED SAFETY SYSTEMS

- (a) The Contractor shall protect and in no way interrupt the service of any installed safety systems or personnel safety devices.
- (b) In the event that the Contractor requires entrance into systems serving safety devices, the Contractor shall obtain prior approval from the Contracting Officer. In the event the Contractor determines that it is necessary to temporarily remove or render inoperable any personnel safety devices in order to accomplish contract requirements, the Contractor shall provide alternate means of protection prior to removing or rendering inoperable any permanently installed safety devices or equipment and shall obtain prior approval of the Contracting Officer.

#### J-C-4 BREATHING AIR COMPATIBILITY

- (a) The contractor shall take precautions to assure that connectors used in contractor-supplied breathing air systems are incompatible with connectors present on either KSC gas systems or on contractor supplied systems that are used to supply non-respirable gases. KSC-STD-Z0008, 'Standard for Design of Ground Life Support Systems and Equipment', establishes requirements for connectors to be used in KSC facility breathing air and non-respirable gas systems. Facility breathing air systems located at KSC/CCAFS are to use a Hansen 3/8 inch quick disconnect as a breathing air distribution interface. KSC facility non-respirable gas systems are to use ½ inch quick disconnects for gas distribution interfaces. Although most facility systems were designed in accordance with this standard, there are nonconforming locations at KSC/CCAFS.
- (b) The Contractor may use KSC facility breathing air systems, if available at the work location. The contractor shall perform a pre-work site inspection to identify coupling types in use at the work location before mobilizing or using any breathing air equipment. The contractor shall also submit a written certification to show the contractor's breathing air system has been recently inspected and meets Grade D breathing air standards. Alternately, the contractor may arrange for on-site testing of contractor-supplied breathing air by the Government at least five days prior to start of work. In addition, the contractor shall also provide a work site evaluation for the NASA Safety Office to review before using any breathing air system. The breathing air test and the safety inspection can be coordinated through the Contracting Officer, and will be at no cost to the contractor.
- (c) The contractor shall tag or label connector ends of all lines and flexible hoses of contractor-provided breathing air or non-respirable gas distribution systems. The tags or labels will clearly identify the contents of the lines or hoses.

### J-C-5 TRAFFIC RESTRICTIONS

- (a) The Contractor shall not move oversized loads and/or slow moving vehicles on established roads within the Kennedy Space Center from 6:30 A.M. to 8:30 A.M. and 3:30 P.M. to 5:30 P.M. on week days. Other than the above restricted hours, the Contractor may move oversize and/or slow moving vehicles to the work site provided all requirements of the Florida State Highway Department have been met.
- (b) Movement of any Contractor vehicle in excess of maximum width, height and length specified by Florida Statues Chapter 316 shall be accompanied by the Contractor's designated Convoy Commander. The Contractor's Convoy Commander shall be totally responsible for the oversized vehicular movement to include making a physical inspection

for possible obstructions along the intended route and obtaining all required special permits.

### J-C-6 RESERVED

### J-C-7 MAINTENANCE OF GOVERNMENT EQUIPMENT

- (a) Government systems and equipment in the Contractor's work area may require servicing, maintenance, or modification by Government support contractors during the contract performance period. This maintenance activity may include work on systems, including underground utilities, that connect with Contractor installed systems and equipment. The Contractor shall allow the Government support contractors into his work area to perform the maintenance work.
- (b) Existing systems and equipment require periodic maintenance that cannot be readily defined in terms of frequency and duration. This maintenance will be coordinated with the Contractor through the Contracting Officer, and will be performed on a non-interference basis as much as possible. The Contractor shall notify the Contracting Officer regarding any uncoordinated maintenance activity.
- (c) The Contractor shall arrange and conduct a joint pre-operations briefing with Government support contractor personnel on each occasion that the support contractor requires access to the contractor's work area. The Contractor shall take the following steps as required to prevent collateral damage to, or interference with, Contractor installed systems and equipment.
  - (1) Verify the scope and limits of the support contractor's planned maintenance activity.
  - (2) Advise the support contractor regarding the scope of the Contractor's work that may be affected by the maintenance activity, including specific locations and dimensions of planned or installed facilities, systems and equipment. Notify the Contracting Officer immediately regarding any resulting conflicts or interferences.
  - (3) Ensure that temporary barriers or protective measures are provided as needed to protect Contractor installed work and preserve job-site safety.

The Contractor shall notify the Contracting Officer immediately regarding any issues that cannot be resolved with the support contractor.

#### J-C-8 AVIATION OBSTRUCTION LIGHTS

The Contractor will provide at least two Aviation Red Obstruction Lights or two High Intensity White Obstruction Lights on all structures over 100 feet above ground level. All construction cranes/booms shall be lighted regardless of height. Lights must be constructed and installed in accordance with U.S. Department of Transportation, Federal Aviation Administration publication AC 70/7460-1F (as revised), Chapter 4, paragraph 15, subparagraph e. Lights will be operated during all periods of reduced visibility, between sunset and sunrise, and as directed by the Contracting Officer.

### J-C-9 INTERFERENCES AND COORDINATION OF WORK

- (a) The Contractor shall coordinate construction layout, systems configuration and work scheduling to avoid interference's between the various construction trades and their installations. Interferences and obstructions resulting from lack of Contractor coordination shall be corrected by the Contractor as approved by the Contracting Officer. All components, fittings and reworking necessary for such corrections shall be provided by the Contractor at no additional cost to the government. Dimensions shown for existing work, and all dimensions required for work that is to connect to existing work, shall be verified by the Contractor by actual field measurement of the existing work. Any work at variance with that specified or shown in the drawings shall not be performed by the Contractor until approved in writing by the Contracting Officer.
- (b) To the extent possible, the as-built dimensions of all new work shall be verified by actual field measurement prior to ordering or fabricating mechanical, electrical, or specialty equipment and materials to be installed. If such field measurement is not possible, then the contract drawings and applicable shop drawings shall be checked by the contractor for dimensional accuracy prior to ordering or fabricating equipment and materials to ensure proper fit for field installation.
- (c) The Contractor shall be responsible for correction of all field fitup problems and interferences which could have been avoided by field measurement or drawing checks prior to equipment fabrication.

# J-C-10 RESTORATION OF GRASSED AREAS DISTURBED BY CONSTRUCTION

The Contractor shall, prior to completion of the contract, grass all areas disturbed by construction activities by seeding and mulching or, when erosion may occur, by sodding, except where specifically directed otherwise in the drawings and specifications.

### J-C-11 TEMPORARY CONSTRUCTION TRAILERS

- (a) The Government will provide a location for temporary office and/or storage facilities if needed for performance of on-site work under this contract. Specific location(s) at or reasonably close to the work site will be identified at the pre-work conference. The contractor is responsible for providing his own telephone service and for making his own connections to KSC utility services, if provided for under 52.236-107.
- (b) All temporary facilities must be structurally sound, in roadworthy condition, and shall be installed and anchored in accordance with KSC-PLN-1904, Trailer/Equipment Tie Down Plan for the John F. Kennedy Space Center; or Rules of Department of Highway Safety and Motor Vehicles, Division of Motor Vehicles Chapter 15C-1, whichever is more stringent. Copies of the standards will be made available to the contractor at the pre-work conference. The contractor shall provide written certification of compliance for all temporary facilities to the Contracting Officer within three days of installation. Any facilities that fail to meet these requirements shall be immediately removed from Government property.
- (c) All temporary facilities shall be removed from government property within two weeks following final acceptance of work performed under this contract.

### J-C-12 CONFINED SPACE WORK REQUIREMENTS

- (a) Special requirements, coordination, and precautions will apply to any contract work taking place in confined spaces. Each contractor contracted to perform work in confined spaces is required to provide a written program for such work as part of its health and safety plan which is consistent with the requirements of 29 CFR 1910.146. For work in telecommunications manholes, provisions of 29 CFR 1910.268(o) are also applicable. The contractor shall coordinate any such work in confined spaces with the KSC Environmental Health Support Contractor, KSC Fire Services Support Contractor, and any other resident government or contractor organization whose employees may have access to the work location. The provision of Environmental Health services by the government does not prohibit the contractor from providing their own atmospheric testing. Government provided services include environmental health monitoring and consultation support for testing of atmospheres in confined spaces as well as fire rescue and emergency medical services.
- (b) Entry into and work in confined spaces shall be in accordance with the requirements of KNPR 1820.4, "KSC Respiratory Protection Program," KNPR 1840.19, "KSC Industrial Hygiene Handbook," and all other applicable clauses of this contract.
- (c) Confined spaces, which contain water, shall be pumped out by the contractor prior to scheduling a confined space entry check.
- (d) In addition to the requirements set forth above, the Contractor shall notify

and obtain approval from the Power Coordinator, telephone 321-867-7300, and/or from Communications Control, telephone 321-867-4141, respectively, prior to performing work in electrical and/or communications manholes.

#### J-C-13 TESTING OF CONSTRUCTION MATERIALS

Tests of construction materials indicated to be performed by the Contractor shall be accomplished by the Contractor utilizing the services of an acceptable independent testing laboratory.

### J-C-14 AFFIRMATIVE PROCUREMENT

Affirmative Procurement (AP) is the purchase of environmentally friendly products and services (i.e. products made from recycled or recovered materials). Federal agencies, their Contractors and subcontractors are required to maximize the purchase materials on the list of "EPA Designated Guideline Items" with the minimum recycled or recovered materials content whenever practicable according to RCRA 6002 and EO 13101. The requirements of RCRA 6002 include the following: "The decision not to procure such items shall be based on a determination that such procurement items:

- (A) are not reasonably available within a reasonable period of time
- (B) fail to meet the performance standards set forth in the applicable specifications or fail to meet the reasonable performance standards of the procuring agencies and/or
- (C) are only available at an unreasonable price.

Any determination under subparagraph (B) shall be made on the basis of the guidelines of the National Institute of Standards and Technology in any case in which such material is covered by such guidelines."

The Contractor shall provide AP approved items as specified within the contract documents. Submittals for AP items shall be provided for approval in accordance with Shop Drawing provisions. If the Contractor proposes to substitute an item that does not conform with AP requirements, the applicable Shop Drawing shall be accompanied by KSC Form 8-69, Contractor Request to Use Nonconforming Parts or Material (Deviation/Waiver Request) identifying the reason for the proposed substitution.

Non-conforming items without approved D/W's will be rejected and the contractor shall be responsible for any costs and schedule impacts associated with replacing such non-conforming items at no additional cost to the Government.

At the conclusion of the project, the Contractor shall provide the Contracting Officer (CO) with a report itemizing all AP items used.

Detailed information on the EPA AP specified/approved products and manufacturers providing these products is available at www.epa.gov/cpg/products.htm.

# J-C-15 CONCRETE WASHOUT/NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)

### 1. CONCRETE WASHOUT/NPDES

The Contractor shall not allow wastewater from standard concrete construction activities (such as on-site material processing, concrete curing, foundation and concrete clean-up, water used in concrete trucks, forms, directional drilling, etc.) to enter waterways or to be discharged before being treated to remove pollutants.

The Contractor shall dispose of the construction-related wastewater by collecting and placing it in a settling pond where suspended material can be settled out and/or the water can evaporate to separate pollutants from the water. The site for the settling pond shall be coordinated with and approved by the Contracting Officer (CO). The Contractor shall remove and dispose of the residue left in the pond before completion of the project in accordance with the solid waste removal specifications and any National Pollutant Discharge Elimination System (NPDES) permits issued for the project. The Contractor shall backfill the area to the original grade and top-soil and sod the area.

### 2. LIGHTWEIGHT CONCRETE

Reference contract article entitled "Hazardous Wastes":

The use of light-weight concrete materials has been confirmed to have the potential to be hazardous due to pH but may also exhibit other hazardous characteristics depending upon processes and products used. The contractor shall not allow wastewater from light-weight concrete construction activities (such as on-site material processing; concrete curing; concrete clean-up; and water used in concrete trucks, forms, etc.) to enter waterways or to be discharged on the ground before being analyzed for hazardous waste characteristics.

A representative sample shall be collected from the first "flush" of light-weight concrete wash water waste at the time of generation, and will be analyzed by the government for hazardous waste characteristics. Pending completion of this analysis, all such waste water shall be containerized, labeled, and handled as "Hazardous Waste Determination in Progress"

If the waste wash water from light-weight concrete usage is determined to be hazardous, it shall be handled, stored, labeled, and managed as hazardous waste in accordance with RCRA regulatory requirements and applicable contract provisions.

If the analysis shows the wash water is not hazardous, this wash water waste and any additional wash water waste generated at the same job using the same product and process may be handled as described under paragraph 1 above.

### J-C-16 DEWATERING/CONSUMPTIVE USE PERMIT (CUP)

Dewatering operations (including manhole dewatering) shall be conducted in accordance with the most current St. Johns River Water Management District (SJRWMD) "Notice General Construction Dewatering Permit, Chapter 40C-22, F.A.C." If the dewatering operation will exceed 300,000 gallons per day (GPD) or thirty (30) days duration, the Contractor shall submit the Notice to District of Dewatering Activity RDS-50 Form fourteen (14) days prior to dewatering activities. The Contractor shall submit the required information to the Contracting Officer (CO) or his designee and provide a copy to the NASA Environmental Assurance Branch (EAB), TA-B1B. NASA EAB, TA-B1B will notify SJRWMD of the Contractor's intended dewatering operation. No dewatering may take place until authorized by the CO.

### J-C-17 SCHWARTZ ROAD LANDFILL OPERATIONS

The KSC Landfill is an unlined Class III landfill. Any waste permitted by DEP regulations for disposal in a Class III landfill as defined in Rule 62-701.200(14), FAC can be accepted at the landfill (**excluding friable asbestos**). For the purpose of meeting recycling, waste diversion and reuse goals, KSC has restricted certain solid waste from landfill disposal (**See RECYCLING AND SALVAGING MATERIALS**). Landfilling of waste is the contractors' last resort for disposal.

### The following waste streams will be accepted:

Construction and Demolition Debris: Materials considered not water soluble and non-hazardous in nature, including but not limited to brick, glass, gypsum wallboard, plastics, concrete, steel and non-pressure treated or unpainted lumber. This also includes rocks, soils, tree remains and other vegetative matter, which normally result from land clearing or development.

### **Special Documentation required:**

Non-Friable Asbestos: Disposal of non-friable asbestos, also referred to as Non-Regulated Asbestos Containing Materials (NRACM) is handled on a case-by-case basis. KSC policy allows for the disposal of NRACM only. In order to dispose of non-friable asbestos, the Contractor shall complete and

submit the KSC Non-Friable Asbestos form (KSC 28-1084 NS), which can be obtained from the Contracting Officer (CO).

The following scheduling procedures shall be followed before NRACM wastes are accepted at the landfill:

The waste generator/hauler shall make arrangements with the landfill operator a minimum of 24 hours before disposal of NRACM waste and shall inform the operator of the quantity of the waste and the scheduled date the shipment will arrive at the landfill. NRACM will be accepted at the landfill Monday through Friday no later than 1400 hours.

### J-C-18 PCB MANAGEMENT

EQUIPMENT CONTAINING PCB CONCENTRATION IN OIL <50 PPM:

- 1. LIQUIDS: Drained oil must be stored in an adequate container on an impervious surface, covered from rain, labeled, and moved offsite within 14 calendar days.
- 2. CARCASS or CONTAINER: Drained equipment must be stored on an impervious surface, covered from rain, labeled with PCB mark, dated and moved offsite as soon as practicable (not to 180 exceed days). If paint analyzed for PCBs and results < 50 ppm No storage, marking, or dating requirement under TSCA regulations. Provide analysis results to RRMF along with KSC 7-49 form to recycle.</p>

### PCB BULK PRODUCT WASTE (SOLIDs):

- 1. PCB Bulk Product Waste is defined in 40 CFR 761.3 as waste derived from manufactured products containing PCBs in a non-liquid state at any concentration, where the concentration of PCBs at the time of designation for disposal is greater than or equal to (≥)50 ppm. The contractor shall dispose of all PCB coated waste with a concentration over the 50 ppm limit in the Schwartz Road landfill (see Schwartz Road Landfill Article). NASA requires all contractors generating metal-based waste coated with PCBs ≤50 ppm to recycle this material (see Recycling and Salvaging Article). If these materials cannot be recycled due to excessive cost in segregation or handling, the contractor shall dispose of this waste in the same manner as PCB Bulk Product Waste.
- 2. All protective coatings that contain PCB shall be handled in accordance with the requirements of this section. Where Material Safety Data Sheets for protective coatings are available and indicate the presence of PCBs, sampling is not required. Where the presence of PCBs is not determined before work begins, PCBs shall be assumed to be present.

3. The following are PCB sample results not included in design package.

Not Detected

### J-C-19 RECYCLING AND SALVAGING MATERIALS

The Contractor shall divert all of the following Construction and Demolition (C&D) waste items from the list below from disposal at landfills and incinerators to facilitate their recycling or reuse. The Contractor shall require all subcontractors, vendors, and suppliers to participate in this effort.

All materials and real property items identified below shall remain property of the Government unless excluded by the contracting documents. The contractor shall utilize on-site recycling and salvaging procedures for the following:

### **DIVERSION**

Concrete<sup>1</sup>

Asphalt<sup>2</sup>

Land Clearing Debris<sup>2</sup>

Dimensional Lumber (non-pressure treated) <sup>2</sup> Wooden Pallets<sup>2</sup> Blast Media (non-contaminated) <sup>2</sup>

Cardboard<sup>3</sup>

Aluminum Cans<sup>3</sup>

Plastic Beverage Bottles<sup>3</sup>

Glass (non-industrial)<sup>3</sup>

White Paper / Mixed Paper<sup>3</sup>

All materials and real property items identified below shall become property of the contractor at the NTP.

### **RECLAIM / RECYCLE**

Electrical Equipment
Office Equipment

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Other Equipment
Metals<sup>4</sup>
Aluminum
Brass
Copper
Rebar
Stainless Steel
Steel
Other Ferrous
Other Non-Ferrous
Scrap Metal

#### Notes:

- <sup>1</sup> Concrete waste must be taken to the Diverted Aggregate Recycling and Collection Yard (DARCY) located at Schwartz Road Landfill. Follow the guidelines in the KSC DARCY Management Plan, which will be provided to the Contractor at the Pre-Work Conference.
- <sup>2</sup> Asphalt, Non-contaminated blast media, Non-pressure treated and unpainted wood, lumber, plywood, green waste and land clearing debris from C&D operations must be taken to the Schwartz Road Landfill. Instructions on where to stockpile these items in the landfill will be given by personnel located inside the scale house at the entrance to the landfill.
- <sup>3</sup> These items require coordination with NASA recycling manager. NASA has recycling containers placed throughout KSC. The contractor shall collect, segregate and transport these materials to the closest receptacle. NASA may provide containers to contractor site for projects generating large volumes of materials in this category.
- <sup>4</sup> All metals coated with non-liquid PCB paints with levels below 50 parts per million shall be recycled by the contractor. Any metals coated with non-liquid PCB paints with levels above 50 ppm shall utilize the Schwartz Road Landfill after Government approval.

The Contractor shall record C&D waste materials on the "Construction & Demolition Projects Report", KSC Form 7-648 NS (02/07) and submit the form on a monthly basis and keep log on site per direction of the Contracting Officer (CO).

### J-C-20 SPILLS

The Contractor shall make all reasonable and safe efforts to contain and control any spills or releases that may occur. The Contractor shall immediately report (by phone) any occurrence of a pollution incident or spill, first to the Emergency 911 (321-867-7911 from a

non 867/861 exchange), then to the Contracting Officer (CO). The Contractor shall document the incident or spill on KSC Form 21-555, "Pollution Incident Report," and submit it to the CO and NASA Environmental Assurance Branch (EAB), TA-B1B, within 24 hours of the incident.

The Contractor shall provide spill response materials to contain and control spills including, but not limited to, containers, absorbent material, shovels, and personal protective equipment. Spill response materials shall be available at all times in which materials/wastes are being handled or transported. Spill response materials shall be compatible with the type of material being handled.

The KSC Spill Cleanup Team will be responsible for the final cleanup and validation of a spill or release.

The Contractor's prompt action to minimize the impacted area and to timely report any occurrence will increase the Spill Cleanup Team's ability to complete the spill cleanup and therefore reduce the Contractor's liability for a larger cleanup.

#### J-C-21 WEEKLY STATUS MEETING

The Contractor shall attend a weekly progress/status meeting to be scheduled by the Contracting Officer OR Contracting Officer's Technical Representative (COTR) for the purpose of determining progress status, delaying factors, material delivery schedules, and status of shop drawing submittals. In addition, a representative of each first tier subcontractor may be required to be present for the conference.

#### J-C-22 SUPERINTENDENT ASSIGNMENT

Alt 2 - Pursuant to clause 52.236-6, entitled "Superintendence by the Contractor," any assigned superintendent must be a full-time employee of the Contractor and be 100 percent committed to superintending the work required by this contract. The superintendent shall not fill any other positions in performance of this contract.

### J-C-23 TRAFFIC CONTROL PLAN

### (a) Standards:

U.S. Department of Transportation Federal Highway Administration Manual (latest edition), on uniform Traffic Control Devices for Streets and Highways, Part II, Signs for Traffic Controls for Street and Highway Construction, Maintenance, Utility and Emergency Operations, set forth the basic principles and prescribes minimum standards to be followed in the design, application, installation, maintenance and removal of all traffic control devices and all warning devices and barriers which are necessary to protect the public and

workmen from hazards within the project limits. The standards established in the aforementioned manual constitute the requirements for normal conditions, and additional control devices, warning devices, barriers or other safety devices will be required where unusual, complex or particularly hazardous conditions exist.

- (b) Traffic Control Devices, Warning Devices and Barriers:
  - (1) The responsibility for installation and maintenance of adequate traffic control devices, warning devices, and barriers, for the protection of the traveling public and workman, as well as to safeguard the work area in general shall rest with the contractor. The required traffic control devices, warning devices and barriers shall be erected by the Contractor prior to creation of any hazardous condition and in conjunction with any necessary rerouting of traffic. The Contractor shall immediately remove, turn, or cover any devices or barriers which do not apply to the existing conditions.
  - (2) The Contractor shall make the Contracting Officer aware of any scheduled operation which will affect traffic patterns or safety, sufficiently in advance of commencing such operation to permit his review of the plan for installation of traffic control devices, warning devices, or barriers proposed by the contractor.
  - (3) The Contractor shall assign one of his employees the responsibility of maintaining the position and condition of all traffic control devices, warning devices, and barriers through the duration of the contract. The Contracting Officer shall be kept advised at all times as to the identification and means of contacting this employee on a 24 hour basis.
  - (4) Maintenance of Devices and Barriers: Traffic Control devices, warning devices, and barriers shall be kept in the correct position, properly directed, clearly visible and clean, at all times. Damaged, defaced, or dirty devices or barriers shall immediately be repaired, replaced, or cleaned as required per the request of the Contracting Officer.

### (c) Flagmen:

The Contractor shall provide competent flagmen to direct traffic in situations as may be required by the standards established in the paragraph above.

### (d) Traffic Control Plan:

(1) After contract award but prior to Unrestricted Notice to Proceed, the Contractor shall submit a traffic control plan to the Contracting Officer for approval. No work will

be allowed on bridges or right-of-way of roads between the hours of 6:00 AM to 8:00 AM and 3:00 PM to 5:00 PM.

- (2) The Contractor may request work time during off shift and weekends in order to meet construction schedules.
- (3) The Traffic Control Plan will be updated by the Contractor on a weekly basis in order to provide a current plan for the job and make adjustments to the Contractor's work. The updated Traffic Control Plan shall be presented at the Weekly Status Meeting.

### (e) Traffic Flow Requirements:

The Contractor shall keep one lane open at all times during road modifications. Any trench or hole created in a roadway shall be backfilled to finish roadway elevation or effectively covered to support vehicle loads prior to allowing any traffic to flow over it. No roads will be blocked during peak hours of traffic; no road work shall start before 8:00 am or continue past 5:00 pm, Monday through Friday unless otherwise approved by the Contracting Officer.

### J-C-24 PERMIT REQUIREMENTS

No on-site work will be allowed until the appropriate State and Federal issuing agencies issue all required permits. The government is responsible for obtaining and providing all required permits except as specified below. Permits required may include, but are not limited to, air construction, dewatering, borrow pit, potable water, sanitary sewer, stormwater, National Pollutant Discharge Elimination System (NPDES) and wetlands.

The following permits are known to be required for this project:

### Water Quality Waiver - SJRWMD

<u>Department of the Army Permit – USACE (Attached) (Amendment 03, 3/4/10)</u>

The Contractor is responsible for obtaining the following permits, if required, before beginning work on the subject systems: FDEP/Brevard County Onsite Sewage Treatment and Disposal System Construction/Permit Abandonment and the FDEP/Brevard County Well Construction/Abandonment Permit. The Contractor shall comply with the terms and conditions of these permits. The Contractor shall provide copies of these permits as well as copies of all documentation submitted as part of the application process to the NASA Environmental Assurance Branch (EAB), TA-B1B through the Contracting Officer (CO) as delineated in contract documents or as directed by the CO.

The Contractor shall not begin construction before receiving all Federal, State, and local construction permits as indicated in this section. Included in adherence thereto is compliance with all conditions of the permit as well as requirements given in the laws, ordinances, and regulations. The Contractor shall be responsible for payment of any fines from government agencies resulting from the Contractor's failure to adhere to all identified permit conditions and agency regulations. These shall include, but are not limited to, material and construction standards, environmental protection, certifications, notifications, and monitoring requirements.

Upon issuance of the Notice to Proceed, the CO shall make copies of all Government provided permits with conditions related thereto available to the Contractor. The Contractor shall keep copies of the permits and related materials such as drawings.

### J-C-25 HAZARDOUS WASTES

Hazardous and controlled waste shall be managed in accordance with all applicable statutes, rules, orders, and regulations which may include but are not limited to 40 CFR Parts 260 - 268, 273, 279, 761. All hazardous waste generated during the execution of this contract shall be disposed of by the Government. Unless directed by the Contracting officer, in no case shall the Contractor or the Contractor's representative transport hazardous waste from KSC.

The Contractor shall be responsible for identifying processes and operations and the location and nature of all potentially hazardous and controlled waste and their containers, as defined in 40 CFR Parts 261, 273, 279, or 761. KSC has established policies and procedures in place to assist the contractor for characterization, handling and storage of wastes generated on KSC. Any request for assistance shall be in writing and submitted to the Contracting officer.

The Contractor shall establish an on-site satellite waste accumulation area (SAA) within 50 feet (ft) of and within sight of any point where hazardous or controlled wastes may be generated. If a satellite accumulation area must be more than 50 ft from the point of generation, or out of sight of the generator, the Contractor shall provide a written request to the CO fourteen (14) days before the start of the waste generating process. The Contractor shall not place the satellite site in service before receiving written approval of the variance from the Contracting Officer.

Unknown wastes – If during the course of the project unidentified waste is discovered by the contractor or subcontractors, the contractor shall immediately contact the Contracting Officer and handle the waste as hazardous. The contractor shall not attempt to move, open or test any unknown commodities.

Universal Wastes (UW) –The Contractor shall handle, collect and manage any universal waste in accordance with 40 CFR 273 and Chapters 62-730 and 62-737 FAC.

Used Oil - Used oil shall be managed according to regulations established in 40 CFR 279 and Chapter 62-710, FAC.

Government Assistance – KSC has established procedures for the handling, storage and disposal of hazardous waste. To aide with proper compliance of site-specific requirements, the Government will assign a NASA Environmental Point of Contact (EPOC) for each project. The EPOC shall, upon request, assist with waste hazard determination, packaging, labeling, and disposal requirements for waste generated on KSC. The establishment of the NASA EPOC in no way relieves the contractor for compliance with requirements defined in 40 CFR Parts 261, 273, 279, or 761.

The Government will provide DOT compliant storage containers and labels upon request. The Contractor shall request the storage containers, by providing quantity and type needed, in writing to the Contracting Officer a minimum of one week before the required need date. The containers will be available for pickup by the Contractor at a location designated by the Contracting Officer. For projects that will be generating large quantities of waste (>10 waste containers needed), a two week notice must be provided to the CO to ensure availability of waste containers.

### J-C-26 ASBESTOS-CONTAINING BUILDING MATERIALS

Asbestos Containing Material (ACM) is known to be present in facilities and or structures assigned under the scope of this contract. The Government will provide information regarding the location and quantity of previously identified ACM in the facilities under this contract in the contract documents.

The contractor shall employee asbestos abatement contractors licensed by the State of Florida in accordance with Florida Statute 469 Asbestos Abatement. This documentation must be available onsite and shall be provided to the Government or Government representative upon request.

The Contractor shall abate all ACM as shown or specified in the contract documents and shall notify the Contracting Officer if any undocumented ACM or suspected ACM is encountered. The Contractor shall provide a written Asbestos Management and Abatement Implementation Plan which is consistent with the requirements of Federal and State regulations. These regulations include the Occupational Health and Safety Administration (OSHA) regulation 29 CFR 1926.1101, the Code of Federal Regulations (CFR) National Emission Standards for Hazardous Air Pollutants (NESHAP) 40 CFR 61 Subpart M, the Florida Administrative Code (FAC) requirements FAC 62-257, and the Florida Statute (F.S.)

469 Asbestos Abatement and F.S. 376.60 Asbestos Removal Program Inspection and Notification Fee.

If more than 260 linear feet, 60 square feet or 1 cubic meter of RACM is to be removed, or any load-bearing structure is to be demolished regardless of whether or not asbestos is present, the Contractor shall submit to the Florida Department of Environmental Protection (FDEP) a "Notice of Asbestos Renovation and Demolition Form" (DEP Form 62-257.900(1). This notice shall be submitted two (2) weeks before demolition. A copy of the notification shall be provided to the Contracting Officer (CO).

#### J-C-27 FRIABLE ASBESTOS MANAGEMENT

Regulated Asbestos Containing Materials (RACM) must be handled, packaged, and labeled of per EPA 40 CFR 61 and OSHA Construction Standards 29 CFR 1926.1101 prior to disposal. The contractor shall transport and dispose of all RACM at the Brevard County Landfill. No RACM will be authorized for disposal at any KSC waste facility.

### LISTING OF PROJECT SPECIFIC KENNEDY SPACE CENTER REQUIREMENTS (JUNE 2006)

The project specific Kennedy Space Center requirements supporting Contract Section I are identified in this Attachment J-D. Nothing contained in this Attachment J-D shall relieve the Contractor from complying with other requirements of this contract, which are not identified and described in this Attachment J-D.

### J-D-1 DISPOSAL AND SALVAGE OF MATERIALS

- (a) Construction and demolition debris shall be removed by the Contractor to the designated disposal area which is located not more than 10 miles from the work site. "Construction and demolition debris" means materials generally considered not to be water soluble and non-hazardous in nature, including but not limited to glass, brick, concrete, asphalt material, pipe, gypsum wallboard, and lumber. The term includes materials from the construction or destruction of a structure as part of a construction or demolition project or from the renovation of a structure. The term includes rocks, soils, tree remains, trees, and other vegetative matter which normally results from land clearing or land development operations for a construction project including such debris from construction of structures at a site remote from the construction or demolition project site. Painted structural materials must be tested prior to disposal in landfill.
- (b) All items of materials designated by the Contracting Officer to be diverted from solid waste disposal as part of the KSC landfill diversion effort shall be

segregated from other mixed construction and demolition debris and taken via separate load by the Contractor to the designated disposal area. Segregated items include concrete, wood, soils and vegetative materials.

- (c) The Contractor should make every effort to deliver vegetative material to the appropriate disposal area. The Contractor, however, may burn combustible vegetative materials, at a designated location within the confines of KSC or CCAFS, upon approval by the Contracting Officer. Burn permits issued by KSC or CCAFS are required before materials are burned. Burning may be limited or prohibited during periods of dry weather, or when sensitive flight hardware is housed in the vicinity of the burn site. Burn Permits must be scheduled a minimum of 48hrs in advance, and are to be requested through the Fire Services Scheduler at 861-3840 between the hours of 0800-1100 & 1200-1430, Monday through Friday.
- (d) All items of materials designated by the Contracting Officer to be salvaged shall remain the property of the Government and will be cleaned of non-salvable debris, segregated, itemized, delivered, and off-loaded by the Contractor at the disposal area. Scrap metal will be treated as salvage. The Contractor shall maintain adequate property control records for all materials or equipment specified by the Contracting Officer to be salvaged. These records may be in accordance with the Contractor's system of property control if approved by the Contracting Officer. The Contractor shall be responsible for adequate storage and protection of salvaged materials and equipment pending delivery to the disposal area.
- (e) The contractor shall ensure that all salvable materials delivered to the designated disposal area meet the following conditions:
  - (1) All items must be accompanied by required documentation, KSC Form 7-49 (or equivalent), and identified with a full, written commercial description.
  - (2) No leakage of any type of fluid from equipment or containers.
  - (3) No visible indication of old spills/releases on outside of equipment or containers that could be washed off from rainfall.
  - (4) Oil filled equipment shall be drained of free-flowing liquids. Items which previously contained dielectric fluid must be accompanied by a copy of analytical results taken within the past 6 months, documenting that the fluid did not contain Polychlorinated Biphenyls ((PCBs) in concentrations equal to or greater than 50 ppm. Fluid sampling will be performed by the Government.

- (5) Unserviceable equipment containing Ozone-Depleting Substances (ODS, e.g.
  - Freon) must be drained (ODS recovered) and labeled "Empty". Serviceable equipment containing ODS needs a certification that the equipment is not leaking. Serviceable equipment shall not be drained.
- (6) Scrap metal must be visually clean of all residual oil/contaminants.
- (f) Hazardous waste shall be managed in accordance with the terms set forth in this contract. Asbestos waste material shall be deposited in the Brevard County Landfill located on Adamson Road in West Cocoa, Florida. The Contractor shall obtain a receipt from the landfill operator for each load of waste deposited and furnish a copy of the receipt to the Contracting Officer.
- (g) A normal state of cleanliness at the work site is expected. The Contractor shall clean up and dispose of debris from the work site daily.

### J-D-2 TURBIDITY & EROSION CONTROL

- (a) The Contractor shall prevent the discharge of sediment into drainage ditches, canals, streams, rivers or lakes due to construction operations. Approved erosion control devices shall be installed to prevent discharge of sediment into any dry or wet watercourse. Erosion control shall consist of anchored hay bales, mulch and netting, filter cloth barriers or other erosion control methods approved by the Contracting Officer. Stockpiled fill material shall not be stored in a manner which allows runoff into any watercourse.
- (b) The Contractor shall not begin work in any watercourse without an approved Florida permit obtained from the Contracting Officer. The contractor shall comply with the turbidity control requirement of the Florida permit which at a minimum will include turbidity curtains. The contractor shall prevent increases in turbidity in excess of water quality standards for the receiving water class, unless increases in turbidity are specifically allowed by the Florida permit. Should the contractor's activities case an increase of turbidity above the allowable standard, the contractor shall cease all contributory construction activity and install additional turbidity control measures.

### J-D-3 STORMWATER POLLUTION PREVENTION

The Contractor shall be responsible for providing pollution prevention measures, including erosion and sediment controls, in accordance with Federal and State Regulations. The pollution prevention measures selected and maintained by the Contractor shall be such that water quality standards are not violated as a result of the Contractor's construction activities. The Contractor shall construct or install temporary and permanent erosion and sediment control best management practices (BMPs) as indicated on the contract drawings and as necessary to minimize

environmental damage and maintain compliance with regulatory requirements. The Contractor shall also abide by any and all permits obtained for the specific project.

A NPDES permit is required for all activities that disturb greater than one (>1) acre of land.

A NPDES permit is not required for activities that disturb less than or equal to one  $(\leq 1)$  acre of land; however, the Contractor shall implement erosion control BMPs during construction.

#### J-D-4 UNIQUE PROJECT SPECIFIC REQUIREMENTS

- 1. Contractor shall provide the government with access to barge and other areas of the jobsite via watercraft when government representatives are on site.
- 2. Work Windows
  - a. The contractor shall submit an initial plan for work in the Intracoastal Waterway (ICW) to the government for approval at the earlier of the two following occasions:
    - i. Concurrent with the project schedule submission
    - ii. 5 weeks prior to channel closure, whichever is earlier.
  - b. The ICW plan shall consist of marine construction activities and the corresponding dates and state which hours the ICW will be closed. The plan is a REQUEST and shall be subject to US Coast Guard approval, therefore the government does not provide a guarantee on work window durations for the work to be provided in this contract.
  - c. The contractor shall coordinate with the government for operational outages at Jay Jay RR Bridge such that railroad crossing schedule is not impacted by replacement of the subaqueous cables or the placement of scour protection in the channel.
  - d. Base Bid and Additive Alternate 1 The contractor shall coordinate with the government for operation outages at the Indian River Bridges.
    - Work on the subaqueous cables shall be restricted to Saturday and Sunday with one bridge in operational condition at all times. Both bridges must be restored to operational condition by 4am on the Monday following an outage.
    - ii. One bridge must remain in operational condition at all times. Both bridges shall be operable and open to traffic within 30 minutes of the peak traffic hours on weekdays.
  - e. Additive Alternates 2 and 3 The contractor shall coordinate with the government for operation outages at the Banana River Bridge and Haulover Canal.
    - Work requiring closure to roadway transportation on the Banana River Bridge shall be restricted to Saturday and Sunday. The bridge must be restored to operational condition by 4am on the Monday following an outage.

### 3. Sequencing Plan for Construction

- a. The contractor shall provide a sequencing plan to the contracting officer at the pre-work meeting for approval.
- b. The sequencing plan shall list and describe the order of events for construction including the placement of barges, cranes, stockpile, etc. for each stage of the construction at each bridge.
- c. The sequencing plan shall include the contractor's laydown areas and intended site layout for each construction site for government approval.
- d. Stockpile locations for each segment of work shall be included with the sequencing plan.
- e. Submit a Hurricane Plan to the contracting officer for approval that addresses the contractor's emergency procedures and mitigation plan in the event of KSC issuing Hurricane warnings and watches.

#### 4. Traffic Control Plan

- a. The contractor shall provide a Maintenance of Traffic (MOT) Plan for government approval.
- b. The contractor shall be responsible to provide and maintain all signage specifications for the detours associated with taking bridges out of service. All signage shall comply with FDOT Specifications.
- c. Crossovers Construction vehicles shall only cross NASA Causeway (SR 405) at existing paved crossovers. The provisions of 2008 FDOT Design Standards 600 Series Index No. 631 for "Median Widths from 50' to <75" and the "General Notes" of Index No. 631 shall apply to this project. Crossover locations shall be included with the sequencing plan.</p>
- d. The provisions of 2008 FDOT Design Standards 600 Series Index No. 600 shall apply to this project.
  - i. Flagmen shall be stationed at the construction entrance to aid delivery trucks as they attempt to gain access to roadways where deemed necessary by the government.
  - ii. Signage shall be placed to warn traffic of the construction zone and any approaching hazards according to Index No. 600. Signs shall be anchored to withstand high winds.